Ice-O-Matic®

Installation, Start-up and Maintenance Manual
GEM-MFI Series
60 hz.

Ice-O-Matic
11100 East 45th Ave
Denver, Colorado 80239
Part Number 9081403-01

Date 11/14 Rev. C

How To Use This Manual

Ice-O-Matic provides this manual as an aid to the end user and service technician in installation and maintenance of the **GEM-MFI Series** ice machines. Do not attempt to perform installation, start-up or maintenance unless you have read and fully understand this manual.

If, at any time, you encounter conditions that are not addressed in this manual, call, E-mail or write the Ice-O-Matic Service Department:

Ice-O-Matic
11100 E. 45th Ave.
Denver, Co. 80239
Attn: Technical Service Department
E-Mail: Tech.service@iceomatic.com

Telephone Numbers

800-423-3367 All Departments
888-349-4423 Technical Assistance Only
303-371-3737

Any Service communication must include:

- Model Number
- Serial number
- A detailed explanation of the problem

Keep this manual for future reference.

The GEM-MFI Series Service Parts Manuals are available separately.

Ice-O-Matic icemakers and dispensers are not approved for outdoor installation.

WARNING: Always disconnect electrical power and shut off water supply whenever maintenance or repairs are performed on the ice machine and related equipment.

CAUTION: Always wear protective eyewear whenever maintenance or repairs are performed on the ice machine and related equipment.

AMERICAN FORESTS

Plant-a-Tree Program

As part of our commitment to the global environment, Ice-O-Matic is devoted to sustainability in every aspect of our business. To offset the carbon footprint of our factory in Denver, we not only recycle materials in our packaging and manufacturing but also recycle our industrial and office waste products.

More important, we partner with AMERICAN FORESTS and plant a tree for every ice machine we sell, thereby supporting reforestation of key regions throughout the world. Our goal is to plant 150,000 trees through our Global Sustainability program. Trees reduce topsoil erosion, prevent harmful land pollutants from getting into our waterways and replace air pollutants with fresh, clean oxygen.

Energy Efficiency

Ice-O-Matic is consistently working to improve the energy efficiency of our ice machines. We are uncompromising in our pursuit of both productivity and energy efficiency and are continually looking for ways to improve both, thereby delivering the best value in energy efficient

Ice-O-Matic Warranty

Every Ice-O-Matic ice maker is backed by a warranty that provides both parts and labor coverage. To view the warranty details, register products, or check your warranty status visit the “Warranty and Water Filter Registration” page on www.iceomatic.com

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Important!

Inspect Promptly

This merchandise has been carefully inspected and packed in accordance with the carrier's packing specifications. Responsibility for safe delivery has been assumed by the carrier. If loss or damage occurs, you as the consignee must file a claim with the carrier and hold the container for carrier's inspection.

Visible Loss or Damage

Any external evidence of loss or damage must be fully described and noted on your freight bill or express receipt and signed by the carrier's agent. Claim should be filed on a form available from the carrier.

Concealed Loss or Damage

If loss or damage does not appear until merchandise has been unpacked, make a written request for inspection by the carrier within 15 days of the delivery date. Then file a claim on a form from the carrier.

File Claim Without Delay Do Not Return Damaged Merchandise to Ice-O-Matic

Installation Guidelines:
For proper operation of the Ice-O-Matic ice machine, the following installation guidelines must be followed. Failure to do so may result in loss of production capacity, premature part failures, and may void all warranties.

Ambient Operating Air Temperatures: (Not including remote condenser)
Minimum Operating Temperature: 50°F (10°C)
Maximum Operating Temperature 100°F (38°C)

Note: Ice-O-Matic ice makers and dispensers are not approved for outdoor installation.

Incoming Water Supply
Minimum incoming water temperature: 40°F (4.5°C)
Maximum incoming water temperature: 100°F (38°C)
Minimum incoming water pressure: 20 psi (1.4 bar)
Maximum incoming water pressure: 80 psi (4.1 bar)
Note: If water pressure exceeds 80 psi a water pressure regulator must be installed.

Note: It is <u>not recommended</u> to connect a water softener because the ice may be more wet and slushy than desired.

Water Softeners add salinity raising the freeze point resulting in "softer" ice. This results in lower ice production.

Drains
All drain lines must be installed per local codes. Flexible tubing is not recommended. Route bin drain ,vented float overflow drain and water condenser drain individually to a floor drain. The use of condensate pumps for draining water is not recommended by Ice-O-Matic. Ice-O-Matic assumes no responsibility for improperly installed equipment.

Water Filtration
A water filter system should be installed with the ice machine.

Clearance Requirements
Self-contained air cooled ice machines must have a minimum of 6 inches (15cm) of clearance at the rear and sides of the ice machine for proper air circulation.

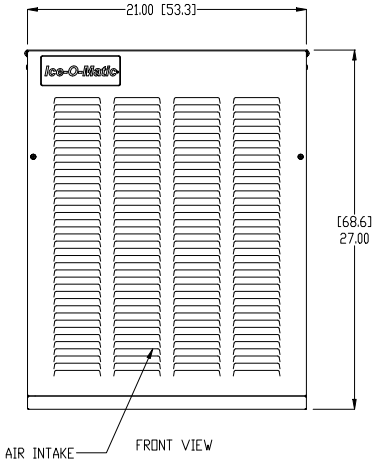
Stacking
Ice-O-Matic GEM-MFI Series ice machines are not designed to be stacked.

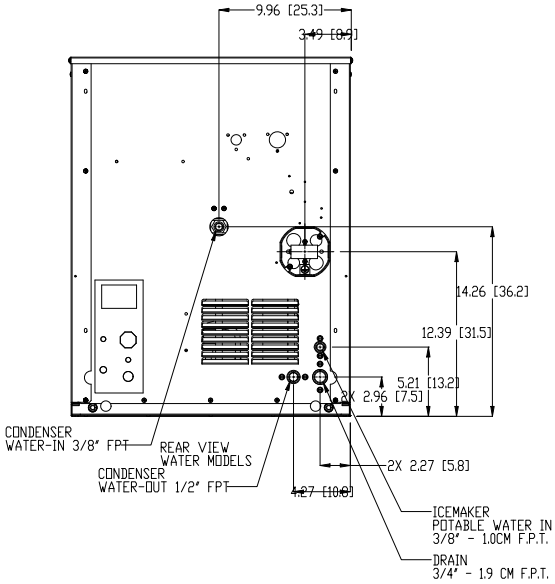
Dispenser Application
The GEM ice machine is approved for specific dispenser applications, reference page 4.
The MFI Series <u>is not approved</u> for dispenser applications.

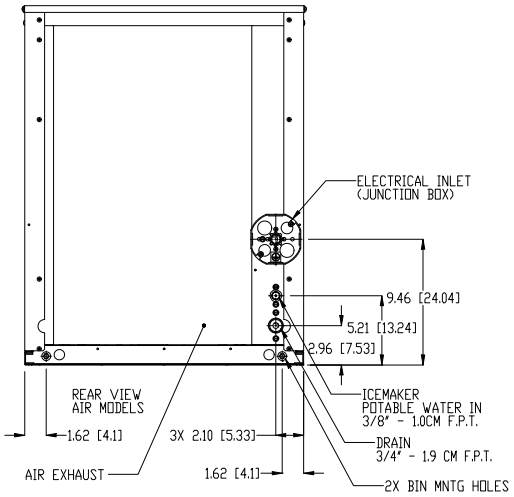
Electrical Specifications
Refer to the serial plate at the rear of the ice machine to make sure proper voltage and circuit breaker size have been supplied. Make sure the machine is on a dedicated circuit. The GEM-MFI Series are not supplied with an electrical power cord and will need to be installed and wired per local electrical codes.

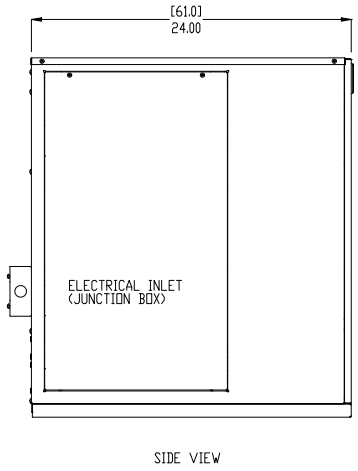
Adjustments
Level the machine within 1/8 inch in all directions. Adjust the cabinet or bin legs as required.
Check the bin control for proper operation.
Check the water level in the reservoir for proper adjustment.
Check the water regulating valve adjustment if water cooled.

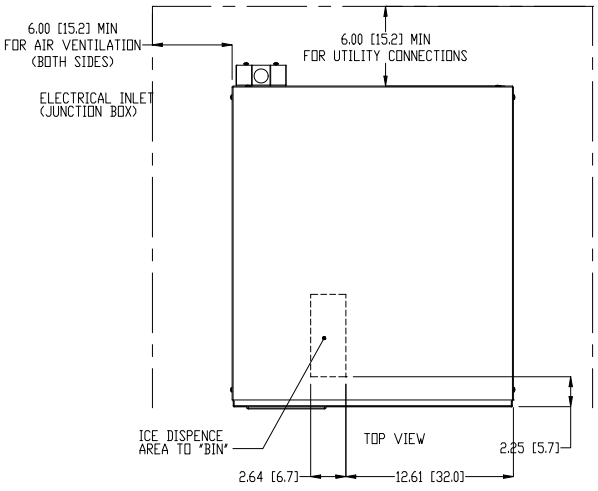
Air and Water Cooled



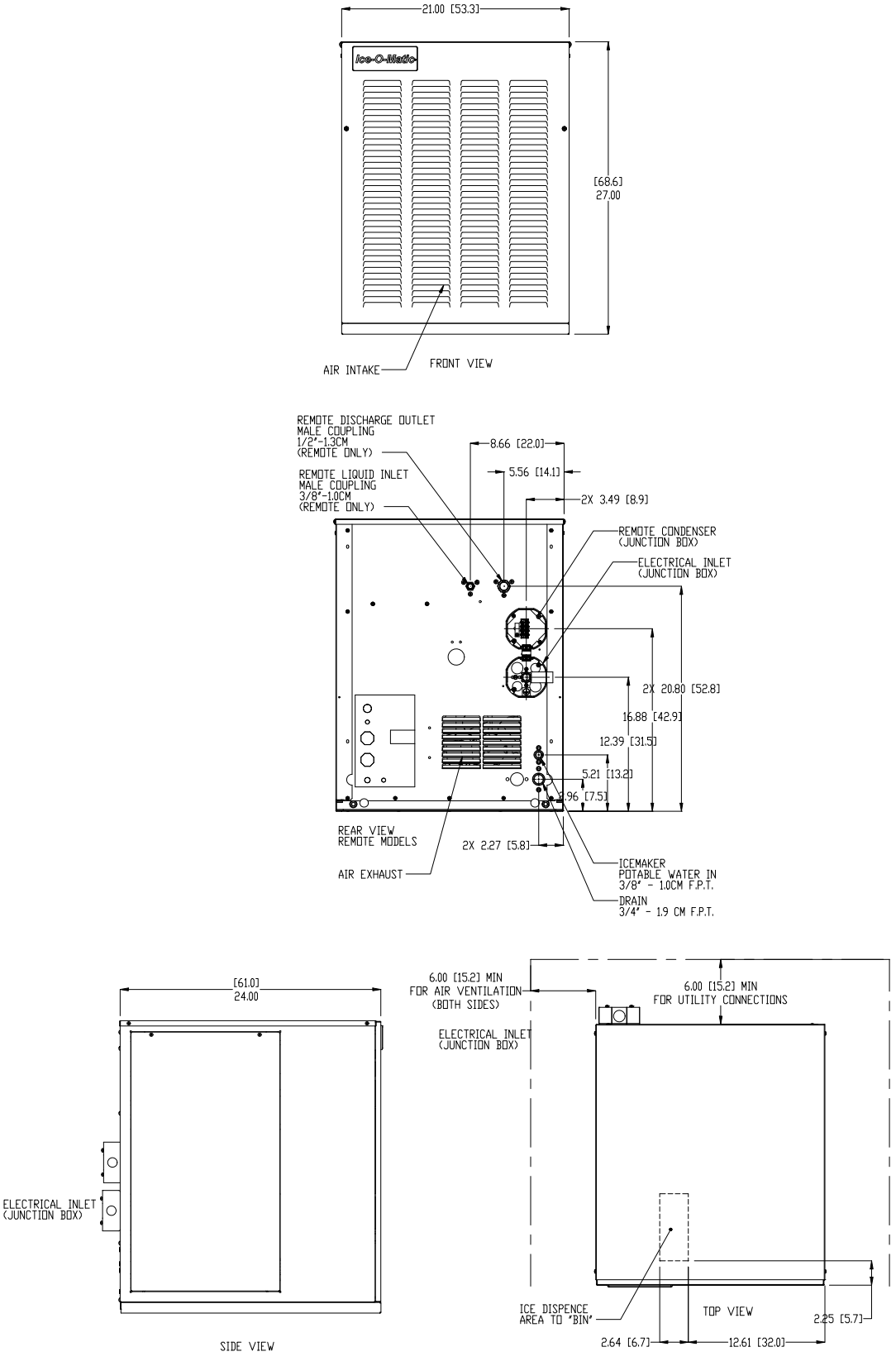








Remote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Ice-O-Matic
[68.6]
27.00
AIR INTAKE
FRONT VIEW
REMOTE DISCHARGE OUTLET
MALE COUPLING
1/2"-1.3CM
(REMOTE ONLY)
REMOTE LIQUID INLET
MALE COUPLING
3/8"-1.0CM
(REMOTE ONLY)
8.66 [22.0]
5.56 [14.1]
2X 3.49 [8.9]
REMOTE CONDENSER
(JUNCTION BOX)
ELECTRICAL INLET
(JUNCTION BOX)
2X 20.80 [52.8]
16.88 [42.9]
12.39 [31.5]
5.21 [13.2]
2.96 [7.5]
REAR VIEW
REMOTE MODELS
2X 2.27 [5.8]
AIR EXHAUST
ICEMAKER
POTABLE WATER IN
3/8" - 1.0CM F.P.T.
DRAIN
3/4" - 1.9 CM F.P.T.
[61.0]
24.00
ELECTRICAL INLET
(JUNCTION BOX)
SIDE VIEW
6.00 [15.2] MIN
FOR AIR VENTILATION
(BOTH SIDES)
6.00 [15.2] MIN
FOR UTILITY CONNECTIONS
ELECTRICAL INLET
(JUNCTION BOX)
ICE DISPENCE
AREA TO "BIN"
TOP VIEW
2.25 [5.7]
2.64 [6.7]
12.61 [32.0]

Bin Application

The GEM-MFI Series is designed to fit the following Ice-O-Matic Bins
- ●B42, using Bin Top KBT 24
- ●B25, B40 or B55 using Bin Top KBT 19.
- ●B100 and B120 using Bin Top KBT 23 (one unit) or KBT 22 (two units).
- ● B150 and B170-Not designed for GEM-MFI Series.

Dispenser Application

The GEM Series can be placed on and used with certain ice and beverage dispensers. Kits are required for proper operation. The MFI Series is not approved for dispenser application.

Dispenser	GEM0450	GEM0650	GEM0956
ICE-O-Matic IOD150	KBT15022, KGEMDIV	KBT15022, KGEMDIV	KBT15022, KGEMDIV
ICE-O-Matic IOD200 or IOD250	KBT25022+ KGEMDIV+ KGEMBIOD	KBT25022+ KGEMDIV+ KGEMBIOD	KBT25022+ KGEMDIV+ KGEMBIOD
Cornelius ED or DF150	KBT15022+R629088514*	KBT15022+R629088514*	KBT15022+R629088514*
Cornelius ED or DF200	KBT25022+KGEM200	KBT25022+KGEM200	KBT25022+ KGEM200
Cornelius ED or DF250	KBT25022+ KGEM250	KBT25022+KGEM250	KBT25022+KGEM250
Cornelius ED300	KGEM300+629087966*	KGEM300+629087966*	KGEM300+629087966*
Cornelius Flavor Fusion 255	KDIL-N-CFF and Cornelius adapter 62988681 (Black)	KDIL-N-CFF and Cornelius adapter 62988681 (Black	KDIL-N-CFF and Cornelius adapter 62988681 (Black)
Lancer (Must have N in part number) 30 inch 4500 model	KDIL-N-L and Lancer Part Number 82-3491	KDIL-N-L and Lancer Part Number 82-3491	KDIL-N-L and Lancer Part Number 82-3491

* Cornelius Part Number

All the dispensers have automatic agitation to keep the ice from clumping. If agitation is too frequent, the Pearl Ice will be damaged and will become difficult to dispense. The Ice-O-Matic and Cornelius dispensers need to be set to 2 seconds on every 3 hours and the Lancer needs to be set to 4 seconds on, 150 seconds off.

The Ice-O-Matic and most Cornelius dispensers also have a restrictor plate at the outlet of the hopper. When used, that plate should be adjusted to be 1.5 inch open to limit the speed of the Pearl Ice flows out during dispensing.

Ice Machine Specifications

Model Number	WxDxH (Inches)	Basic Electrical	Condenser	Minimum Circuit Ampacity	Maximum Fuse Size	Refrigerant Charge oz. R404
GEM0450A2	21x24x27	115/60/1	Air	16.00	20	22
GEM0450W2	21x24x27	115/60/1	Water	14.35	20	18
GEM0650A2	21x24x27	115/60/1	Air	21.00	30	24
GEM0650W2	21x24x27	115/60/1	Water	19.50	30	19
GEM0650R2	21x24x27	115/60/1	Remote	23.50	30	208
GEM0956A2	21x24x27	208-230/60/1	Air	11.80	15	30
GEM0956W2	21x24x27	208-230/60/1	Water	11.20	15	22
GEM0956R2	21x24x27	208-230/60/1	Remote	15.30	20	208
MFI0500A2	21x24x27	115/60/1	Air	16.00	20	22
MFI0500W2	21x24x27	115/60/1	Water	14.35	20	18
MFI0800A2	21x24x27	115/60/1	Air	21.00	30	24
MFI0800W2	21x24x27	115/60/1	Water	19.50	30	19
MFI0800R2	21x24x27	115/60/1	Remote	23.50	30	208
MFI1256A2	21x24x27	208-230/60/1	Air	11.80	15	30
MFI1256W2	21x24x27	208-230/60/1	Water	11.20	15	22
MFI1256R2	21x24x27	208-230/60/1	Remote	15.30	20	208

Location:
Ice-O-Matic ice machines are designed to be installed indoors in a controlled environment. Install the ice machine in a location where it has enough space around it to be accessible for service. A minimum of 6 inches must be allowed at the back for air circulation on air cooled models. Try to avoid hot, dirty and crowded locations. Be sure that the location of the machine is within the environmental limitations.

Storage Bin:
Remove the bin packaging. Tip the storage bin on its back, using parts of the packaging to protect the exterior finish. Remove the skid and install the legs into the threaded holes in the bottom of the bin. Turn the leg levelers all the way in preparation for leveling later. Return the bin to the upright position.
Note: Do not push the bin into position, but lift it there. Pushing a bin, especially one with ice in it, can cause damage to the bin legs and mounts.
Install the appropriate bin top according to the instructions provided with the bin top.

Ice machine:
The ice machine is heavy, so the use of a mechanical lift is recommended for lifting the machine high enough to install on top of the bin. After the unit is placed on the bin, line it up so it is even with the back side. Secure the ice machine to the bin with the hardware provided with the ice machine. Remove the front panel and remove any shipping blocks or packaging material.

Proper functioning of the bin door requires the bin door, when it is opened, to be in a stable position. If the ice machine is too far forward on the bin, the opened door may not be stable, resulting in an unexpected closing of the bin door.

If the ice machine is to be mounted on a bin or dispenser other than an Ice-O-Matic, refer to the manufacturer's instructions for machine mounting. Ice-O-Matic will not be responsible for damage or injury that results from unexpected closing of the bin door as a result of the ice machine being too far forward on the bin.

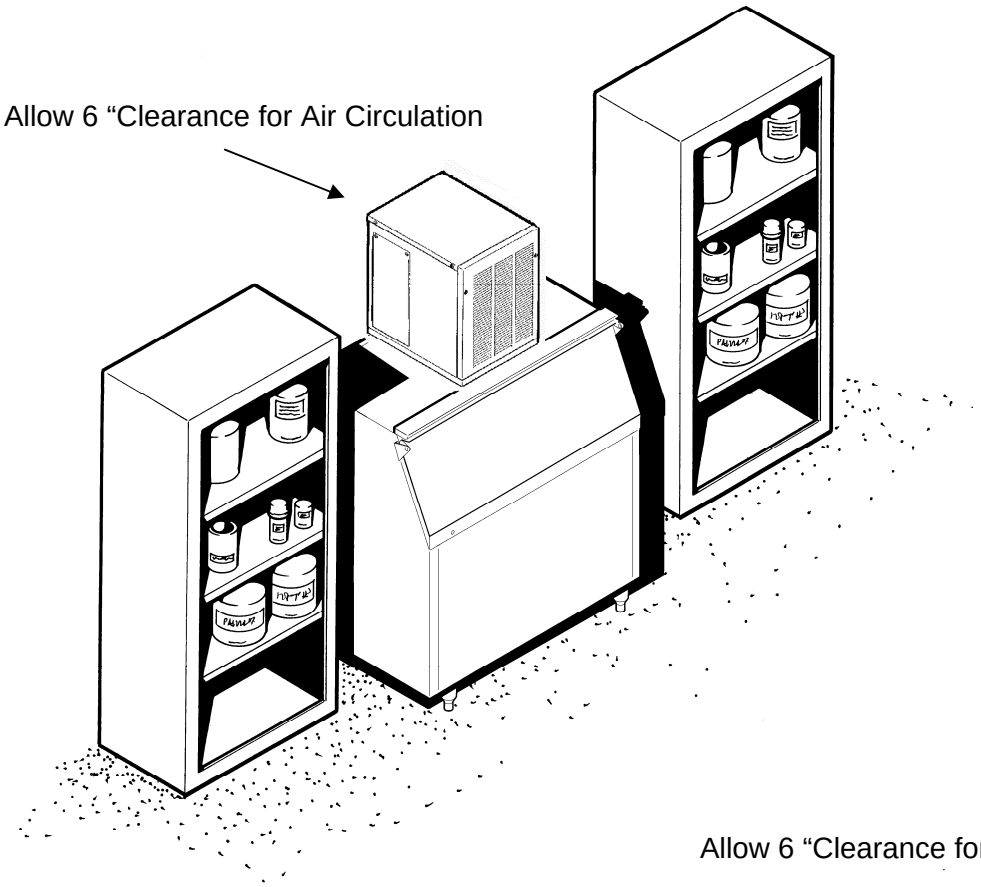
Water Limitations:
An ice machine is a food manufacturing plant: it takes a raw material, water and transforms it into a food product, ice. The purity of the water is very important in obtaining pure ice and maximizing product life. This section is not intended as a complete resource for water related questions, but it does offer these general recommendations:
- Check with a water treatment specialist for a water test and recommendations regarding water filters and treatment.
- In most cases, the water used to make ice should be filtered or treated, depending upon the water. There is no one type of water filter that is effective in all situations. That is why a water test in important.

RO Water Limitations:
Water conductivity must be no less that 35 microSiemens/cm.

Notice:
Ice-O-Matic ice machines are designed and manufactured with the highest regard for safety and performance and meet or exceed the standards of UL, NSF and CUL.

Ice-O-Matic assumes no liability or responsibility of any kind for products manufactured by Ice-O-Matic that have been altered in any way, including the use of any part and/or other components not specifically approved by Ice-O-Matic.

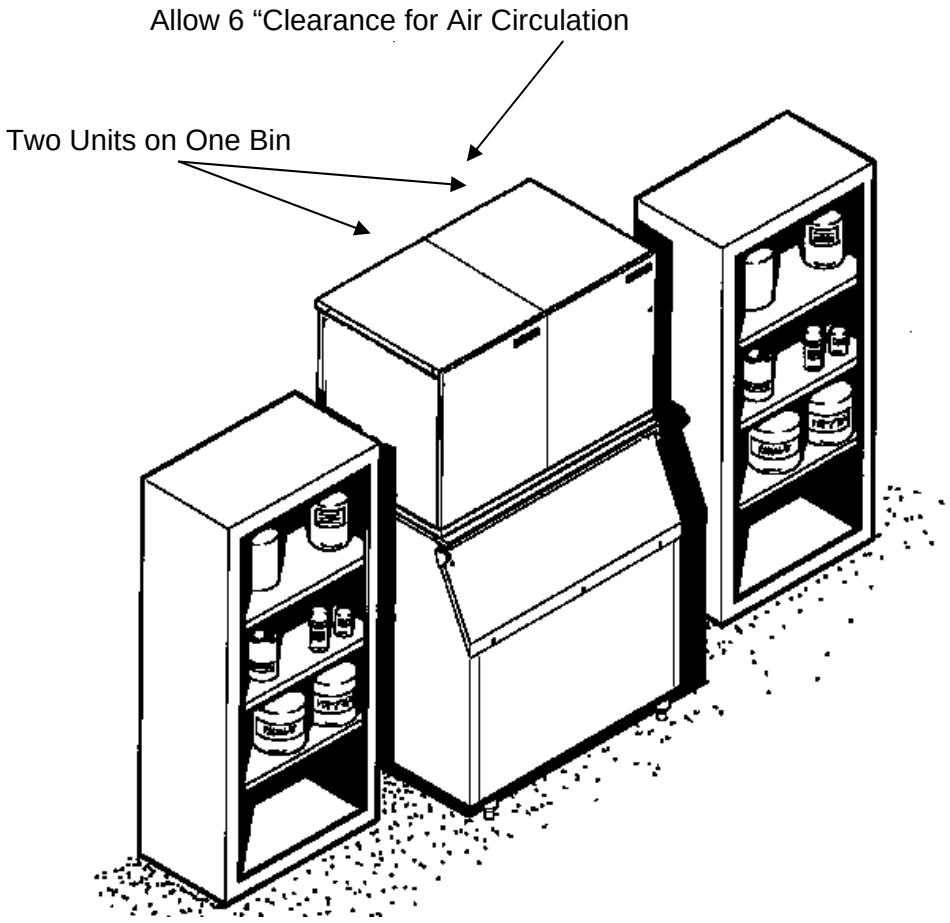
Ice-O-Matic reserves the right to make design changes and/or improvements at anytime. Specifications and design are subject to change without notice.

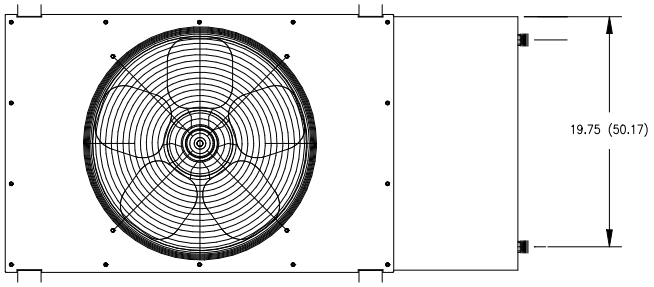


A proper installation locates the ice machine indoors, but in a place where the heat and noise it produces are not objectionable.

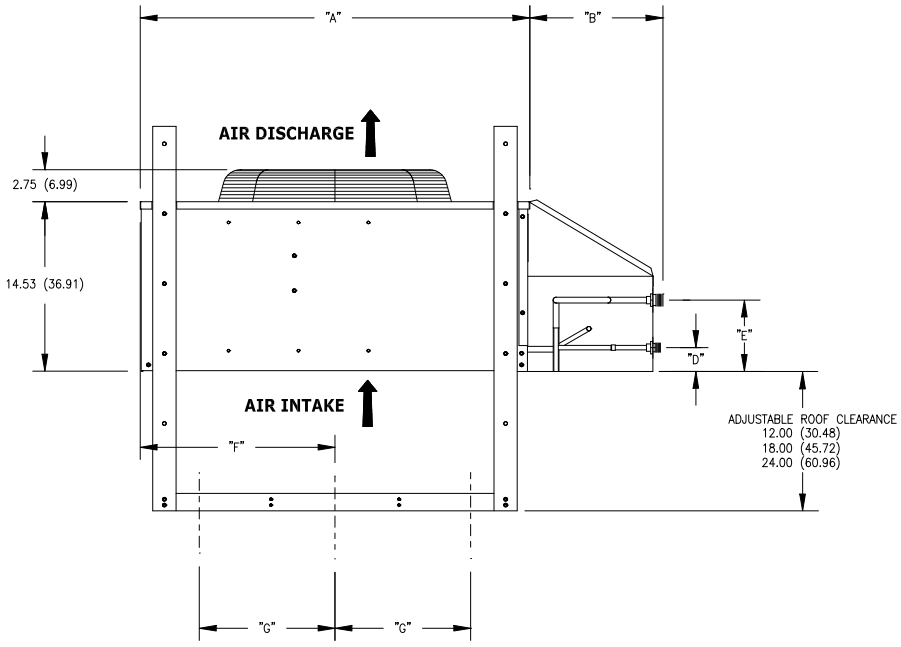
Air cooled machines discharge hot air out the back and must have a minimum of 6 inches of clearance behind the ice machine.

Space for maintenance access is also important. If two units are placed side by side on a bin, side access becomes even more important.

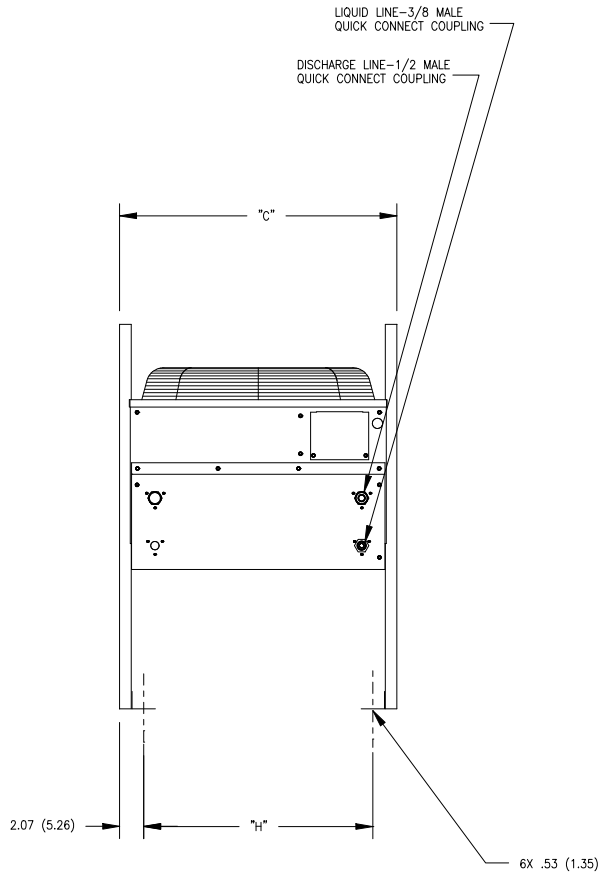




TOP VIEW



R.H. SIDE VIEW



END VIEW

GRC Dimensions (Inches)	GRC1001	GRC1061	GRC1061
A	33.36	33.36	33.36
B	10.75	10.75	10.75
C	23.81	23.81	23.81
D	2.04	2.04	2.04
E	6.12	6.12	6.12
F	16.73	16.73	16.73
G	11.65	11.65	11.65
H	19.57	19.57	19.57
GEM/MFI Model Number	GEM0650**R**	GEM0956**R**	MFI1256**R**

Line Sets

RT325404 25 Foot Precharged Line Set
RT340404 40 Foot Precharged Line Set

Use the following for planning the placement of the remote condenser relative to the ice machine.
Location Limits: Remote condenser location must not exceed ANY of the following:
- Maximum rise from the ice machine to the remote condenser is 35 physical feet.
- Maximum drop from the ice machine to the remote condenser is 15 physical feet.
- Physical line set maximum length is 100 feet.
- Calculated line set length maximum is 150 feet.

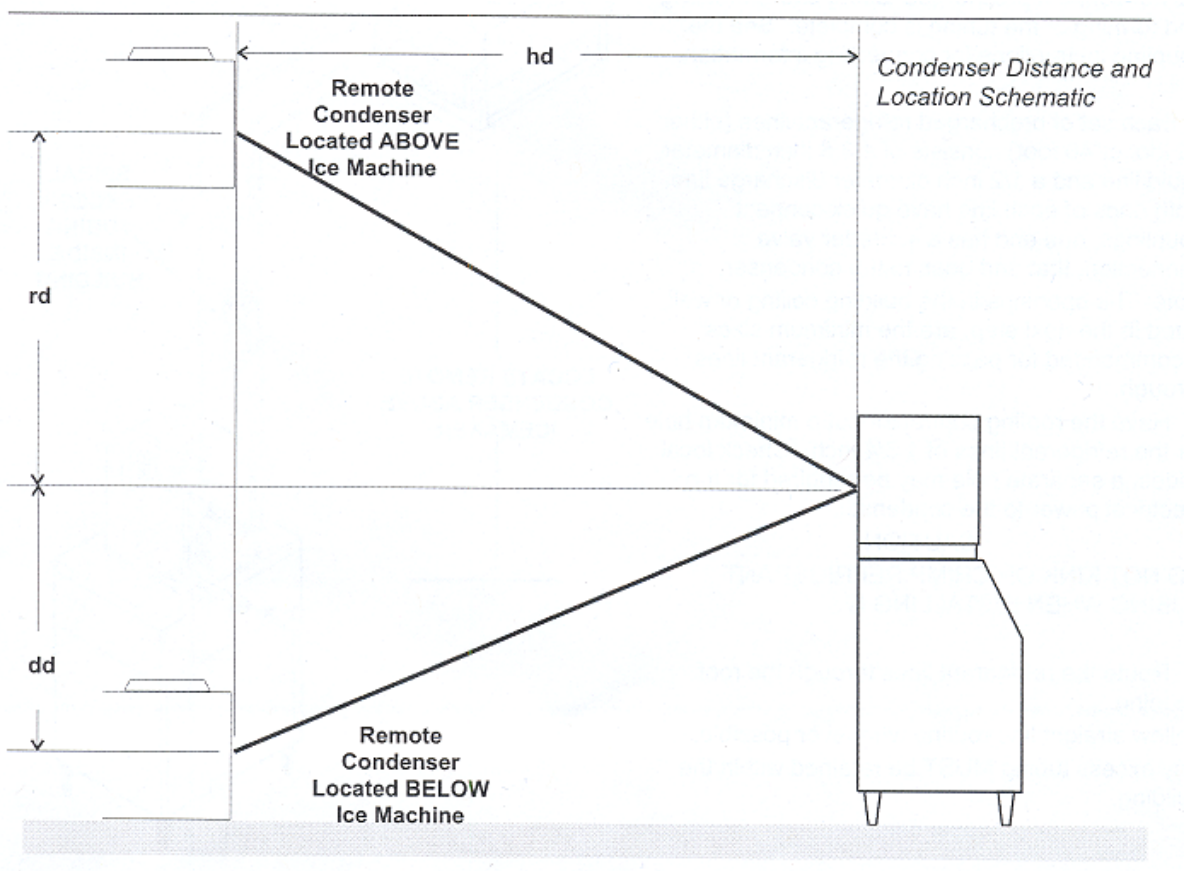
Calculation Formula
- Drop = dd x 6.6 (dd= distance in feet)
- Rise = rd x 1.7 (rd = distance in feet)
- Horizonal Run = hd x 1 (hd = distance in feet)
- Calculation: Drop(s) + Rise(s) + Horizontal Run = dd+rd+hd=Calculated Line Length

Configurations that do NOT meet these requirements must receive written authorization from Ice-O-Matic. This includes multipass or rack system remote condensers.

Do NOT:
- Route a line set that rises, then falls, then rises.
- Route a line set that falls, then rises, then falls.

Calculation Example 1:
The remote condenser is to be located 5 feet below the ice machine and then 20 feet away horizontally. (5 feet x 6.6=33 feet) + (20 feet) = 53 feet. This location would be acceptable.

Calculation Example 2:
The remote condenser is to be located 35 feet above the ice machine and then 100 feet away horizontally. (35 feet x 1.7=59.5 feet) + (100 feet) = 159.5 feet. 159.5 feet is greater than the 150 maximum is NOT acceptable.



Remote Condenser Location:

Limited to a 25 foot or a 40 foot length of precharged refrigerant tubing connecting the ice machine to the remote condenser. The remote condenser must be above or level with the ice machine. Select the best available location, protecting the remote condenser from extremes of dirt, dust and sun. Meet all applicable building codes. Usually the services of a licensed electrician are required.

Roof Attachment:

1. Install and attach the remote condenser to the roof of the building, using the methods and practices of construction that conform to the local building codes, including having a roofing contractor secure the remote condenser to the roof.
2. Have an electrician connect the remote condenser fan motor to the ice machine, using the junction box at the back of the ice machine.

Precharged Line Set Routing

CAUTION: Do not connect the precharged tubing until all routing and forming of the tubing is complete. See the coupling instructions for connecting information.

1. Each set of preharged tubing refrigerant lines consists of a 3/8 diameter liquid line and a 1/2 inch diameter discharge line. Both ends of each line have quick connect couplings, one end has a Schrader valve connection, that end goes to the condenser.

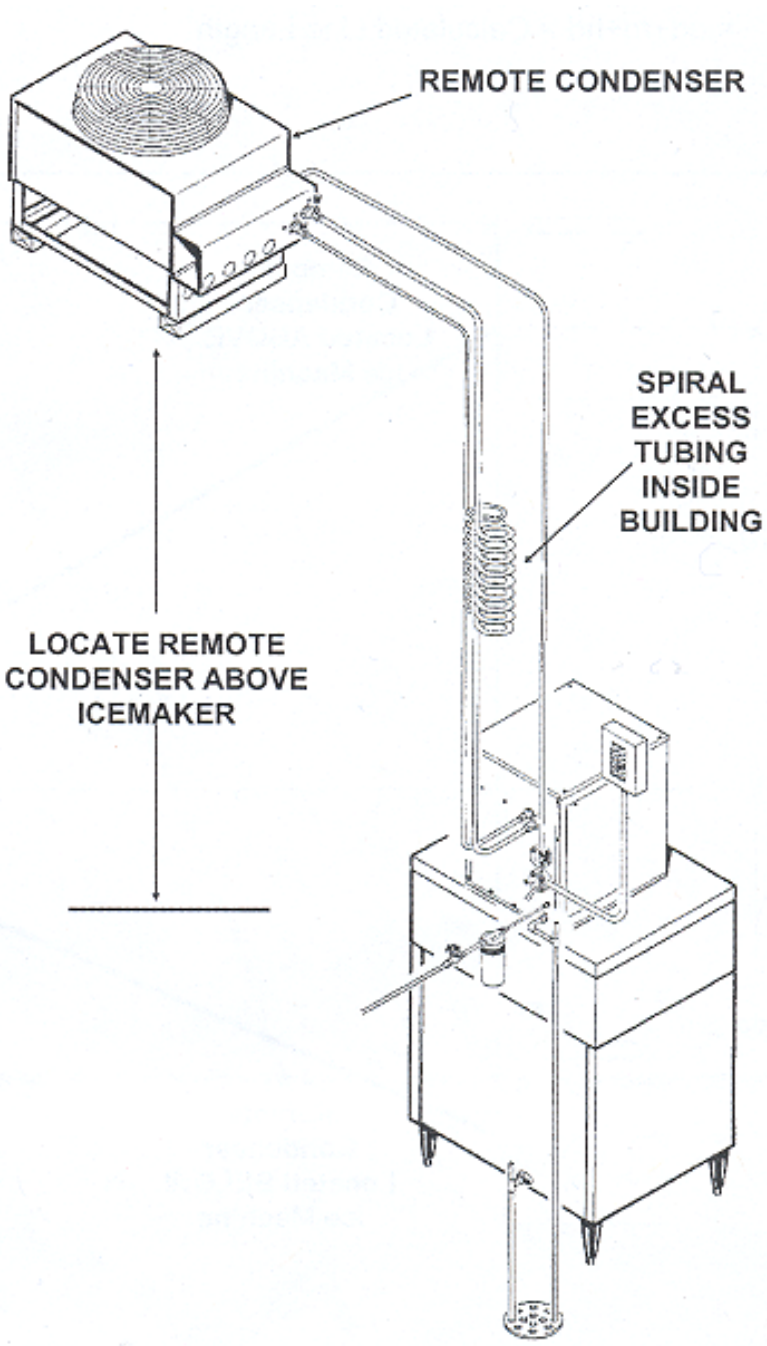
Note: The openings in the building ceiling or wall, listed in the next step, are the minimum sizes recommended for passing the refrigerant lines through.

2. Have the roofing contractor cut a minimum hole for the refrigerant lines of 1.750 inch. Check local codes, a separate hole may be required for the electrical power to the condenser.

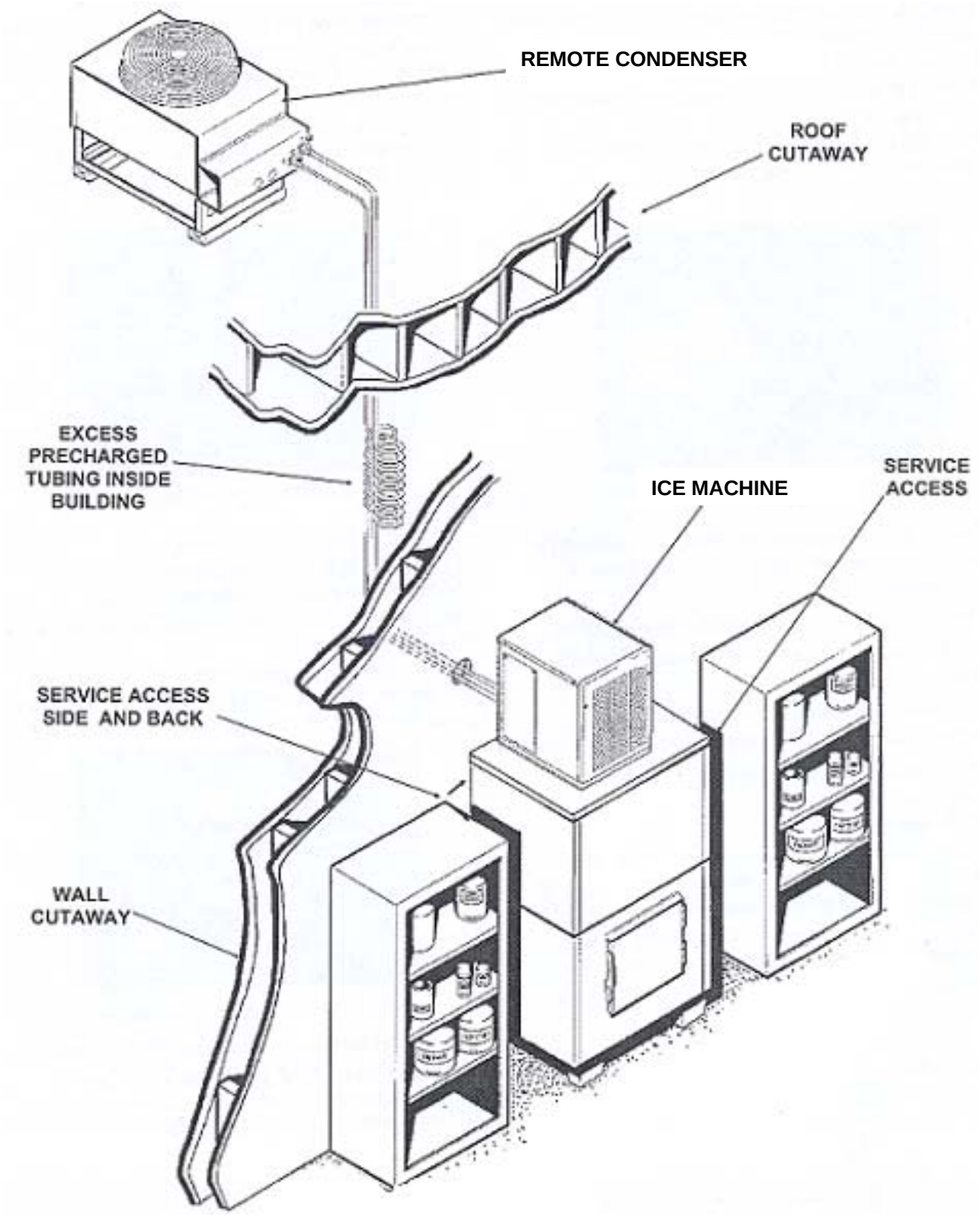
CAUTION: DO NOT KINK OR CRIMP REFRIGERANT TUBING WHEN INSTALLING IT.

3. Route the refrigerant lines through the roof opening. Follow straight line routing whenever possible. Any excess tubing MUST remain within the building.
4. Spiral the excess length of precharged tubing inside the building. Use a horizontal spiral (does not need to be as tight as illustrated) to avoid any traps in the lines.
5. Have the roofing contractor seal the holes in the roof per local codes.

CAUTION: The couplings on the sets of precharged lines are self sealing when installed properly. Carefully follow the instructions:



Typical Installation



Coupling Instructions:

Initial Connections:

1. Remove the protector caps and plugs. Wipe the seats and threaded surfaces with a clean cloth to be certain that no foreign matter remains on them.

2. Lubricate the inside of the couplings, especially the O-Rings with refrigerant oil.

3. Position the fittings on the correct connections on the remote condenser and ice machine.

- The 1/2 inch discharge line (**Schrader valve end**) goes to the remote condenser fitting marked “Discharge Line”
- The 3/8 inch liquid line (**Schrader valve end**) goes to the remote condenser fitting marked “Liquid Line”.
- The 1/2 inch discharge line goes to the ice machine fitting marked “Discharge Line”.
- The 3/8 inch liquid line goes to the ice machine fitting marked “Liquid Line”.

Final Connections:

4a. Begin by tightening the couplings together by hand. Continue to turn the swivel nuts by hand until it is certain that the threads are properly engaged.

4b. Using two wrenches, one to rotate the swivel nut and one to hold the tubing, tighten each coupling. It is CRITICAL that ONLY the NUT on the precharged tube be turned or the diaphragms will be torn loose by the piercing knives and be loose in the refrigeration system causing severe operational problems.

Note: As the coupling is tightened, the diaphragms in the quick connect couplings will begin to be pierced. As that happens, there will be increased resistance to tightening the swivel nut.

4c. Continue tightening the swivel until it bottoms out or a very definite increase in resistance is felt (no threads should be showing). Do **NOT** over tighten.

5. Using a marker or pen, mark a line lengthwise from the coupling union nut to the bulkhead. Then tighten the coupling and additional 1/4 turn. As the nut turns, the line will show when the 1/4 turn is made.

6. After all connections are made, and after the king valve has been opened (do not open at this time) check the couplings for leaks.

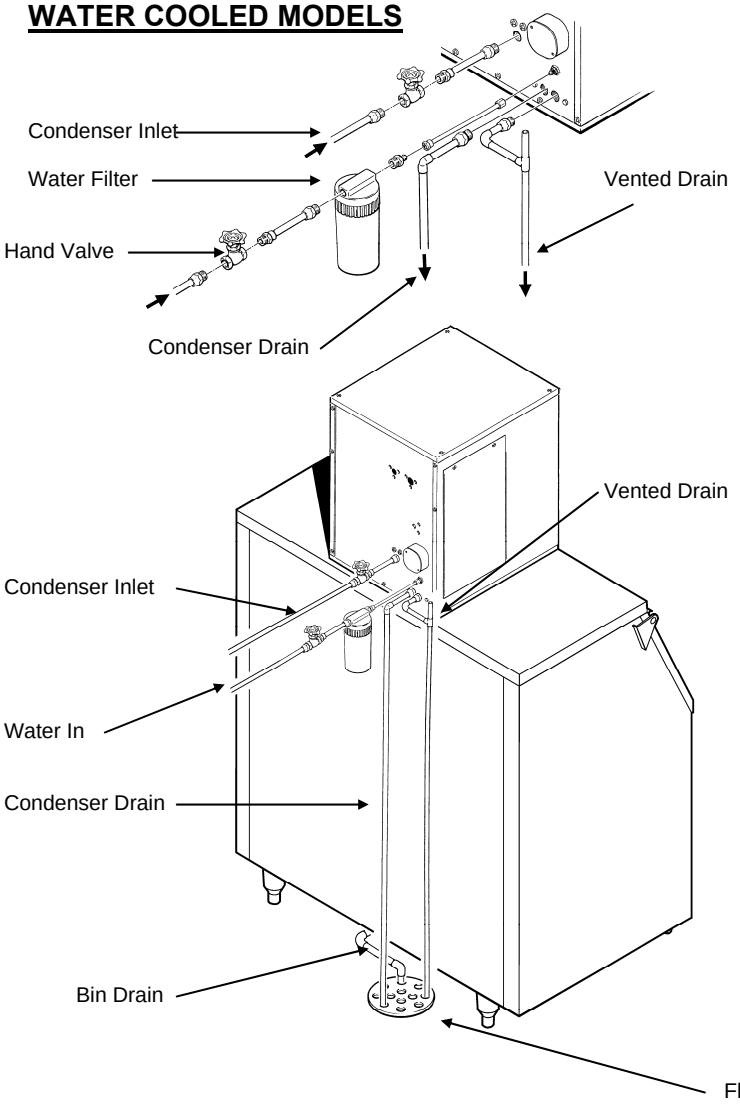
Water Inlet:

- **Air Cooled Models:** The recommended water supply is clean, cold water. Use 3/8 inch O.D. copper tubing, connect to the 3/8 inch FPT at the back of the cabinet. Install a hand valve near the machine to control the water supply.
- **Water Cooled Models:** A separate 3/8 inch O.D. copper line is recommended, with a separate hand valve to control it. Connect to the 3/8 inch FPT condenser inlet at the back of the cabinet. The water pressure to all lines must always be above 20 psig, and below 80 psig.
- **Water Treatment:** In most areas, a water filter of some type will be useful. In areas where the water is highly concentrated with minerals, the water should be tested by a water treatment specialist, and the recommendations of the specialist regarding filtration and/or treatment should be followed.

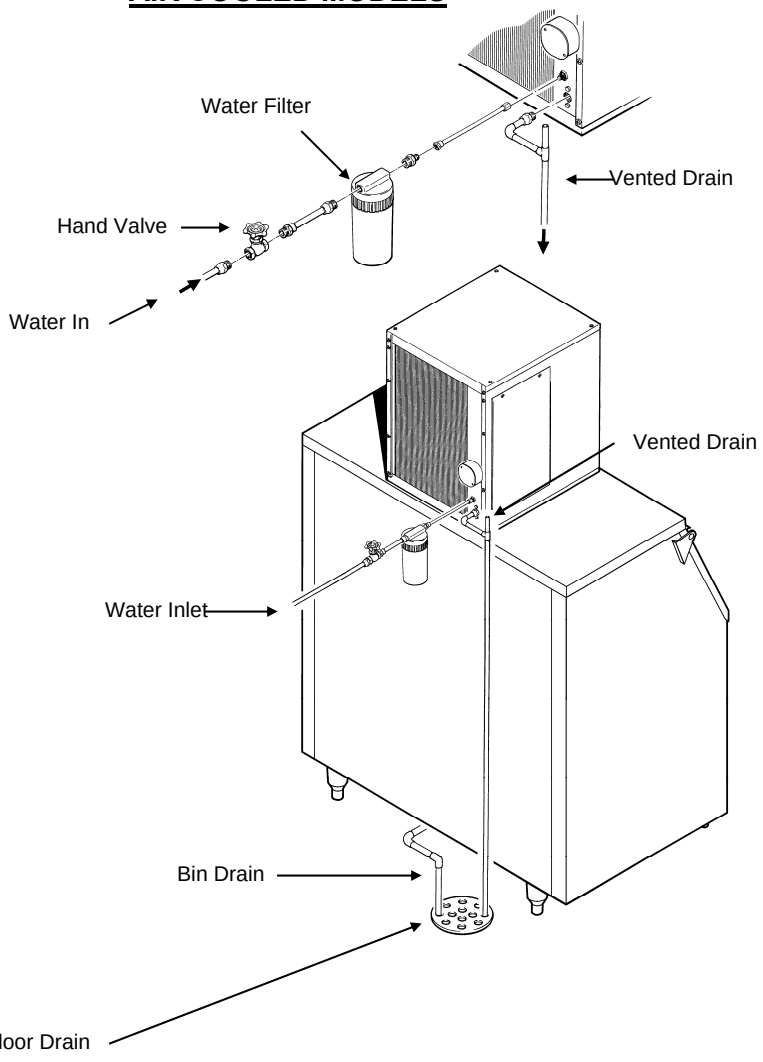
Drains:

- **Air Cooled Models:** Connect a rigid drain tube to the ¾ FPT drain fitting at the back of the cabinet. The drain is a gravity type, and a ¼ inch per foot fall is the minimum acceptable pitch for the drain. There should be a vent at the highest point of the drain line, and the ideal drain receptacle would be a trapped and vented floor drain. Use only ¾ inch rigid tubing.
- **Water Cooled Models:** Connect a separate drain line to the ½ inch condenser drain connection at the back of the cabinet. Do not vent this drain.
- **Storage Bin:** Connect a separate gravity type drain line to the ice storage bin drain. Vent this drain if there is a long horizontal run from the bin to the floor drain. Insulation of this drain line is recommended.

WATER COOLED MODELS



AIR COOLED MODELS



Water Inlet:

●Remote Cooled Models:

The recommended water supply is cold water. Use 3/8 inch O.D. copper tubing, connect to the 3/8 FPT on the back of the cabinet. Install a hand valve near the machine to control the water supply.

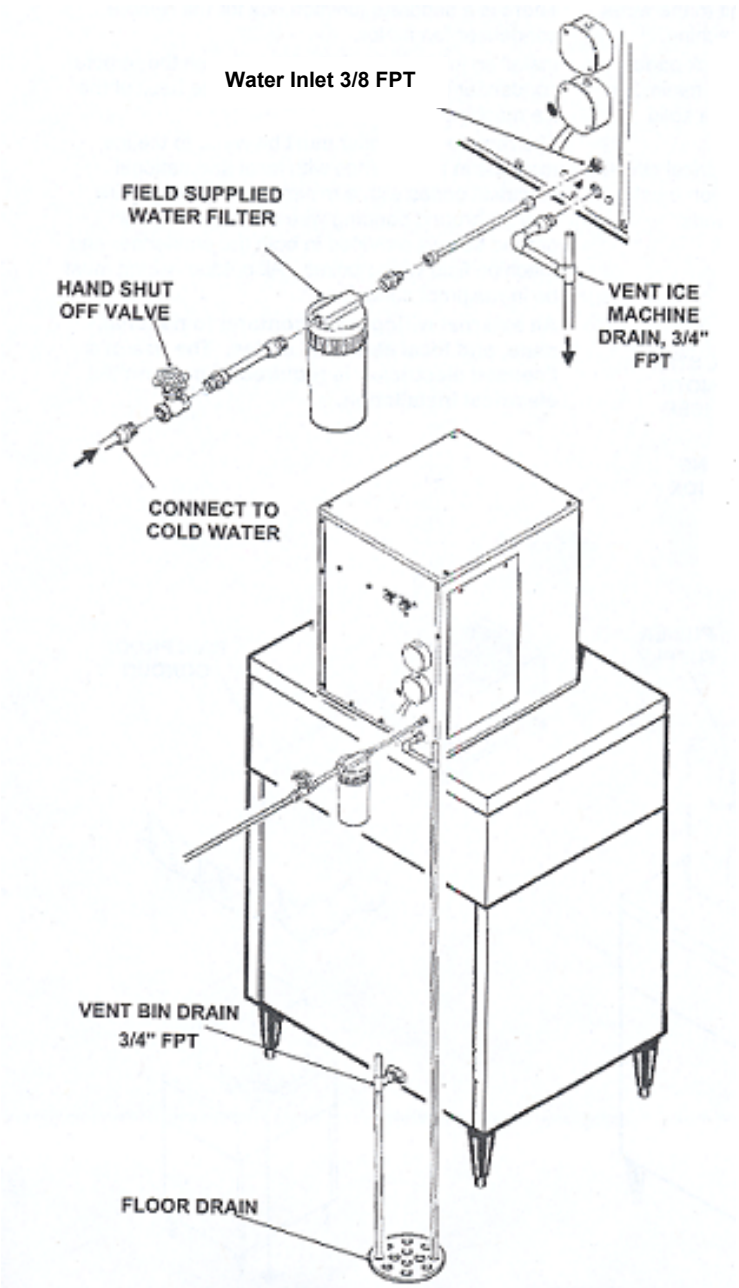
Drains:

●Remote Cooled Models:

There is one 3/4 inch FPT drain at the back of the cabinet; the drain line is of the gravity type, and 1/4 inch per foot fall is an acceptable pitch for the drain tubing. There should be a vent at the highest point of the drain line, and the ideal drain receptacle would be a trapped and vented floor drain. Use only ¾ inch rigid tubing.

Storage Bin:

Install a separate gravity type drain. Insulation of this drain line is recommended.

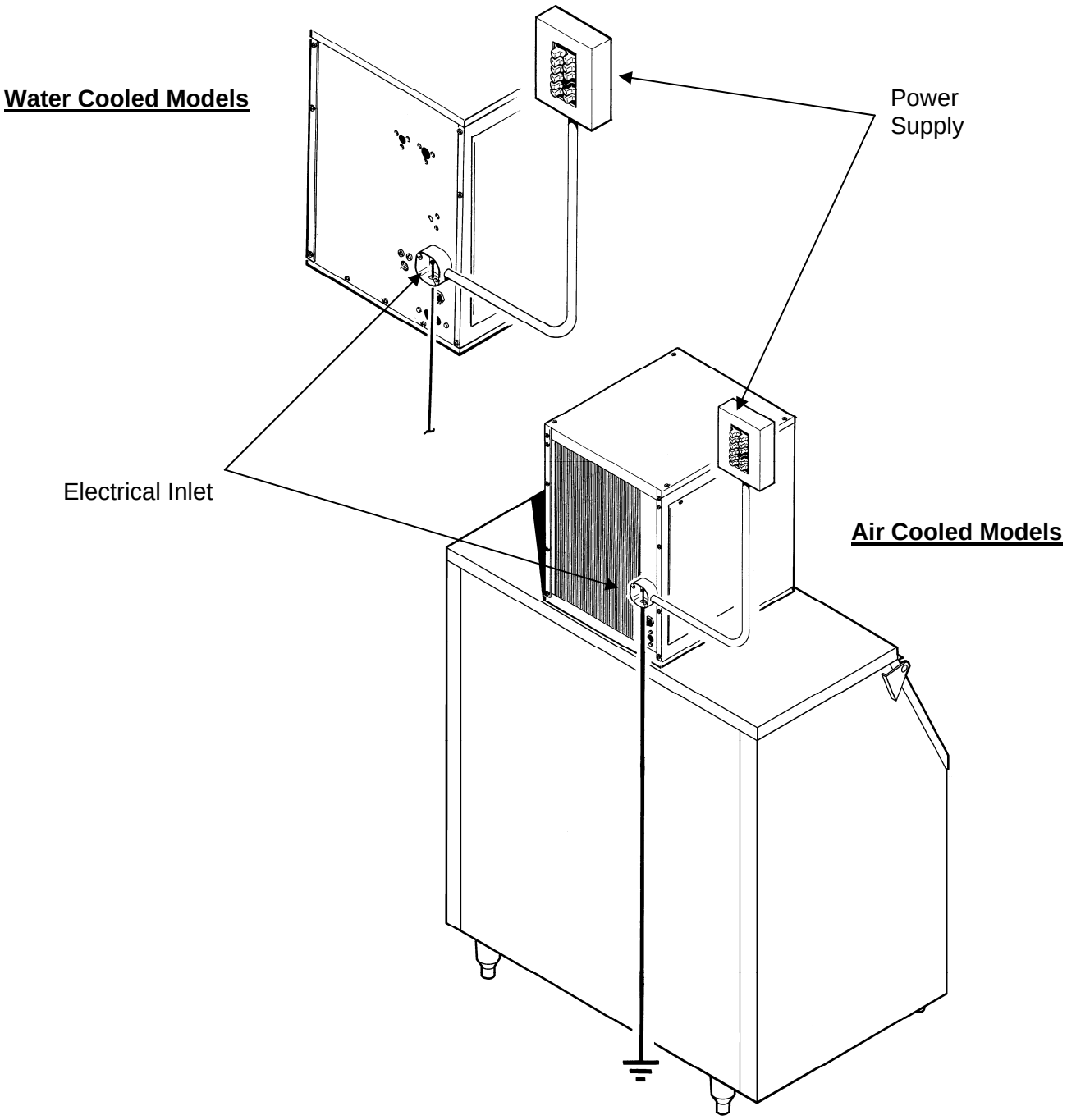

Water Inlet 3/8 FPT
FIELD SUPPLIED WATER FILTER
HAND SHUT OFF VALVE
VENT ICE MACHINE DRAIN, 3/4" FPT
CONNECT TO COLD WATER
VENT BIN DRAIN 3/4" FPT
FLOOR DRAIN

Electrical Connections:

Check the ice machine nameplate (located on the back panel) for the voltage requirements, and minimum circuit ampacity. The ice machine requires a solid chassis to earth ground.

Connect the ice machine to its own electrical circuit so it is individually fused. Voltage variation must remain within the limitations, even under starting conditions.

Note: All external wiring must conform to national, state and local electrical codes.
The use of a licensed electrician is required to perform the electrical installation.



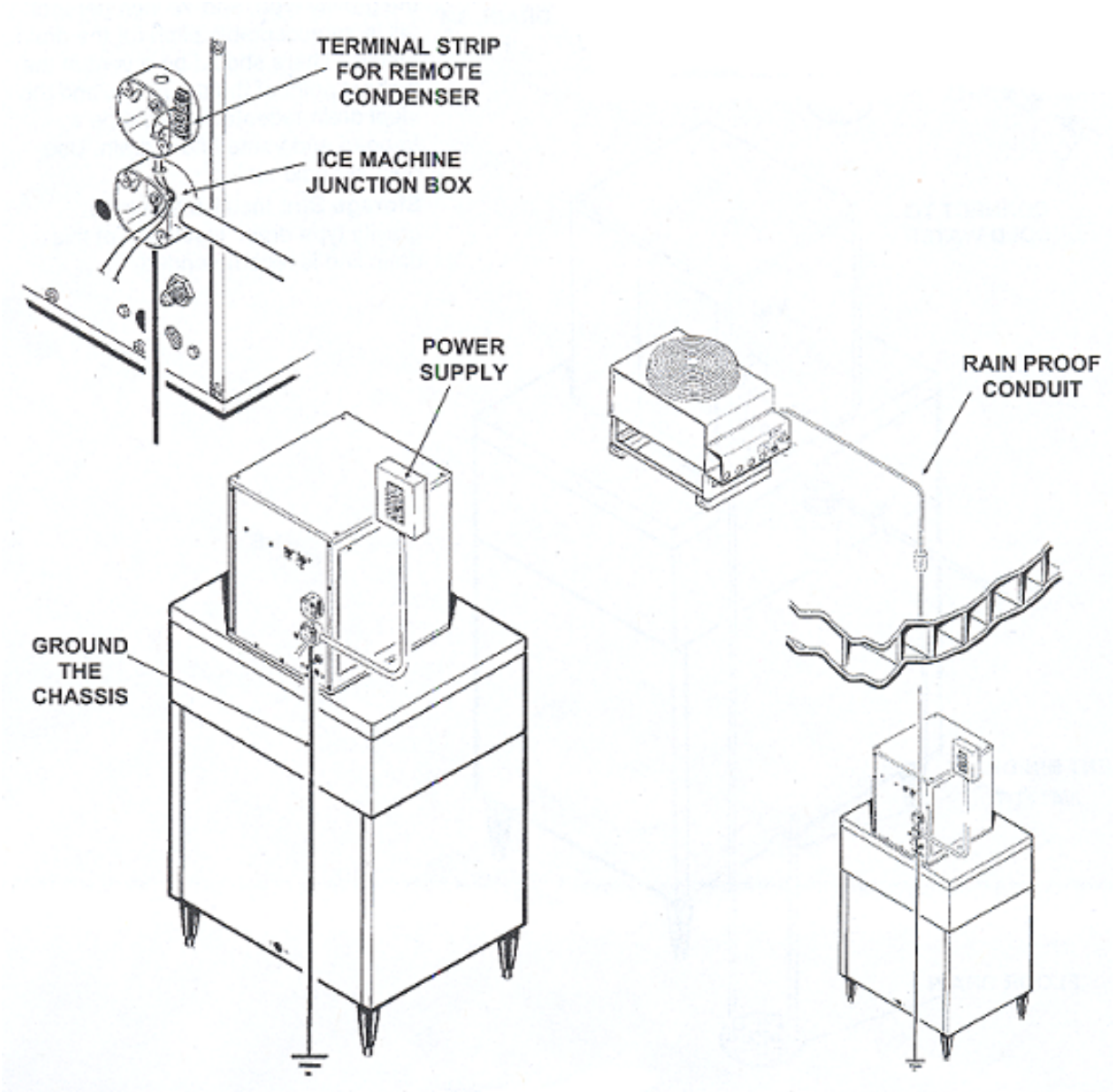
INSTALLATION MUST CONFORM TO ALL APPLICABLE CODES.

Connect the electrical power to the unit to the wires in the junction box at the rear of the machine. Check the nameplate (located on the back panel) for the voltage requirements, and for the minimum circuit ampacity. The machine requires a solid chassis to earth ground wire.
Connect the ice machine to its own electrical circuit so it is individually fused. Voltage variation must remain within design limitations, even under starting conditions.

There is a separate junction box for the remote condenser fan motor. Install an interconnecting wire between the remote condenser and the junction box at the back of the ice machine.

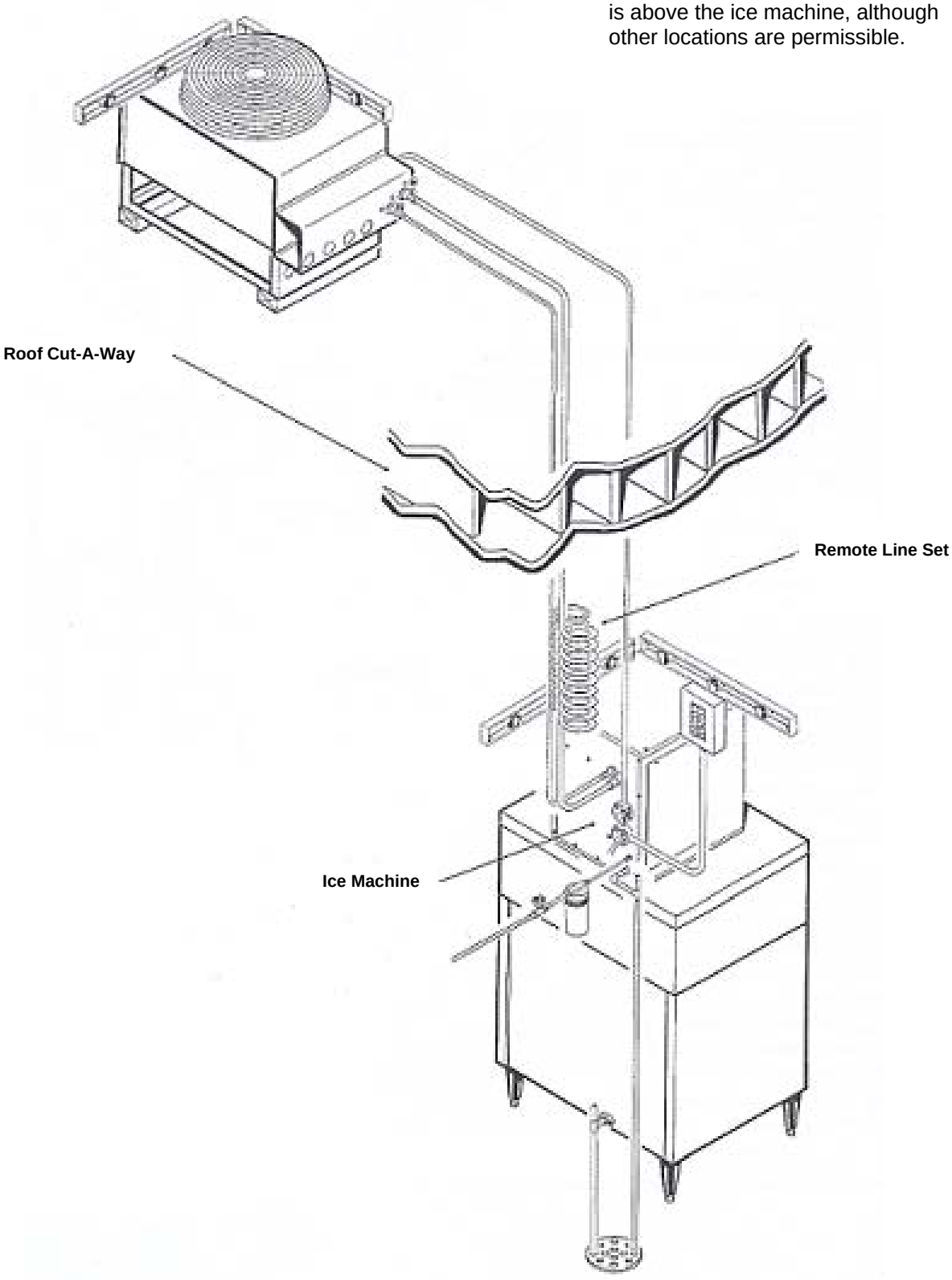
The remote condenser must be wired to the ice machine in accordance with local and national electrical codes with a minimum of 18 AWG. wire with a ground bonding wire connected to the ground screw provided in both the condenser and machine field wiring boxes. All outdoor wiring must be in rainproof conduit.

All external wiring must conform to national, state and local electrical codes. The use of a licensed electrician is required to perform the electrical installation.



Completed Installation-Remote Condenser

A typical installation should generally appear as illustrated below. The best place for the remote condenser is above the ice machine, although other locations are permissible.



Final Check List: Air and Water Cooled

☑ _____1. Is the ice machine installed indoors in a location where the air and water temperatures are controlled and where they do not exceed the design limitations?

☑ _____2. Is there an electrical service disconnect within sight of the installed machine?

☑ _____3. Has the voltage been checked and compared to the nameplate requirements?

☑ _____4. Have all the plumbing connections been made and checked for leaks?

☑ _____5. Is the ice machine and storage bin level?

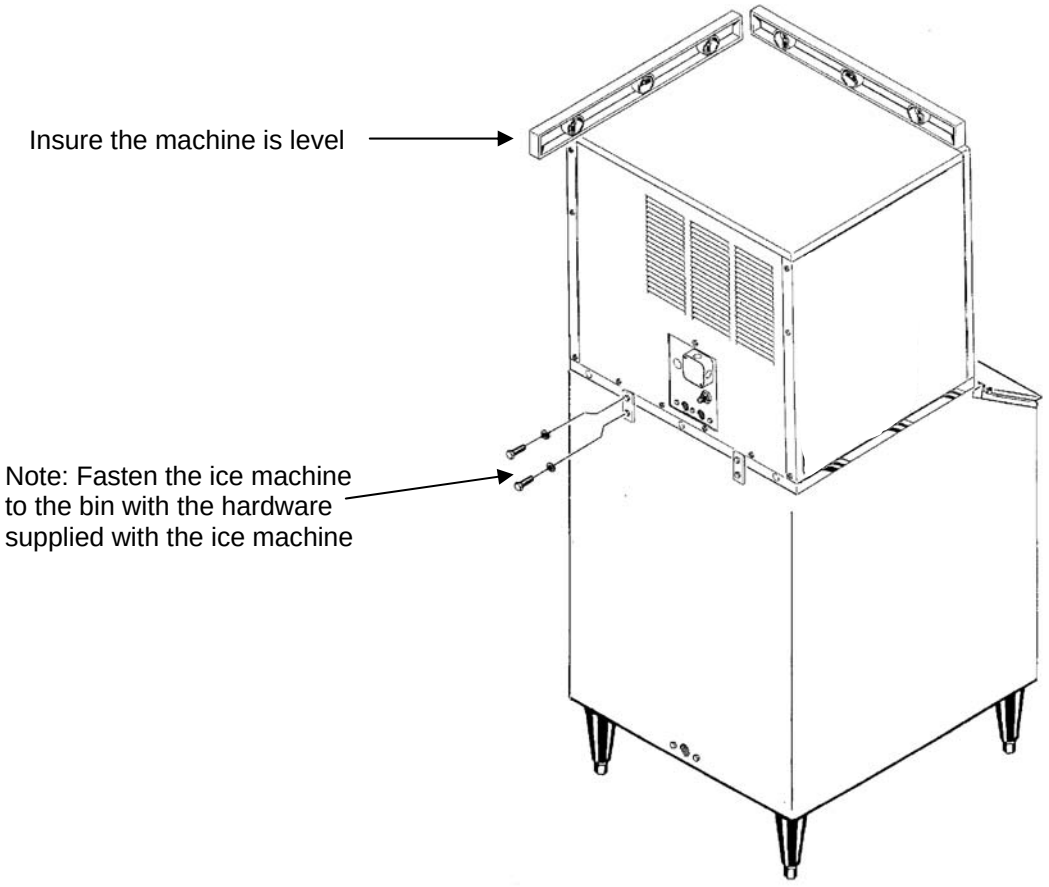
☑ _____6. Is there a minimum of 6 inches of clearance at the back of the machine for proper service access and air circulation?

☑ _____7. Is the water pressure a minimum of 20 psig?

☑ _____8. Has the ice machine been secured to the bin?

☑ _____9. Is there clearance over the top of the ice machine for service access?

☑ ____10. Is there a water shut off valve installed near the ice machine?



Final Check List: Remote

☑___1. Is the ice system installed indoors in a location where air and water temperatures are controlled, and where they do not exceed the design limitations?

☑___2. Is there an electrical service within sight of the installed machine? Has the voltage been checked, and compared to nameplate requirements?

☑___3. Have all the plumbing connections been made and checked for leaks?

☑___4. Has the machine and bin been leveled?

☑___5. Is there a minimum of 6 inches clearance at the rear, left and right of the machine for proper service access?

☑___6. Is the water pressure a minimum of 20 psig?

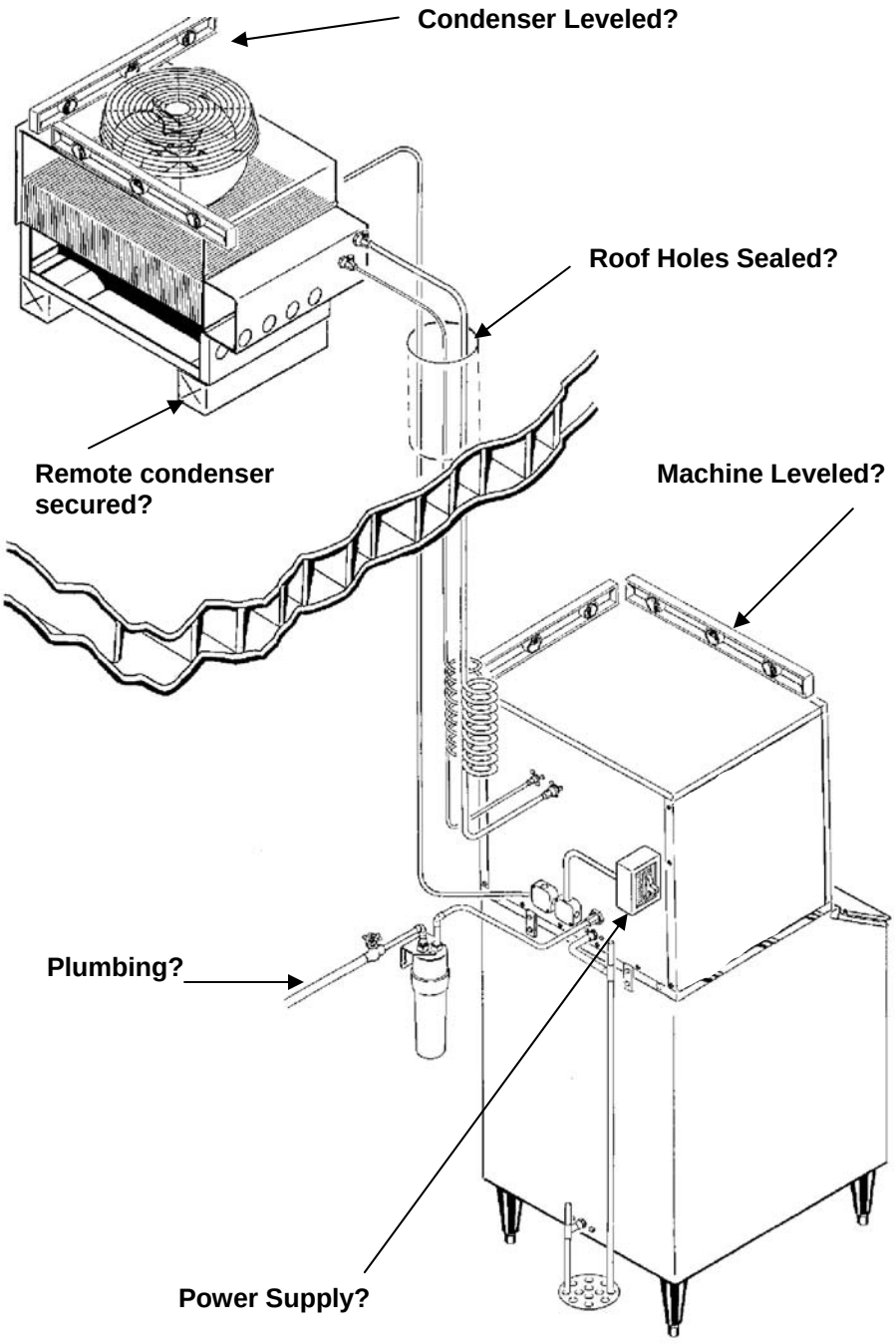
☑___7. Has the machine been secured to the bin or dispenser?

☑___8. Is there a water shut off valve installed near the machine?

☑___9. Is the remote condenser installed per local codes, and in a place where it has adequate ventilation and minimal solar heat gain?

☑___10. Has all shipping material and literature (inside front panel) been removed from the units?

☑___11.Have the remote condenser and pre-charged lines been properly installed?



☑___12. Has the electrical connection between the ice maker and condenser been made?

☑___13. Verify that the master switch is in the OFF position.

☑___14. Switch ON the electrical power.

☑___15. Refer to the Pre-Start instructions

Pre-Start Inspection: Air and Water Cooled

1. Remove the front and side service panels.
2. Check that any shipping blocks have been removed.
3. Inspect the interior of the ice machine for loose screws or wires.
4. Check that no refrigerant lines are rubbing each other.
5. Check that the fan blades turn freely (Air Cooled).
6. Check that the unit is installed correctly according to the final check list.

Start Up:

1. Go through the pre-start inspection.
2. Open the hand valve, observe that water enters the water reservoir, fills the tube from the water reservoir to the evaporator and then shuts off. (Water cooled only, Turn the water supply **ON** to the water cooled condenser). Check for leaks.
3. Switch the master (mode) switch **ON**. The electrical start up sequence in automatic.
    a. There should be a short (15 second) delay before the gear motor starts.
    b. After the gear motor starts, the compressor will start.
4. On air cooled models, the condenser will begin to discharge warm air, on water cooled models, the water regulating valve will open and warm water will be discharged into the drain.
5. The unit should soon be making ice, if desired; the low side pressure may be checked: it should be 32 psig +/- 2 psig.
   The suction line temperature at the compressor is normally very cold, nearly to the point of frost up to the compressor body, but not on it.
   The air cooled discharge pressure will depend upon air and water temperatures, but should be between 200 psig and 280 psig.
   The water cooled discharge pressure should be a constant at about 245 psig.
   Note: The above pressures are for new, clean machines. You can expect to see some values higher, and some lower between different units.
6. **There are no adjustments to make**, so replace the panels.
7. Clean and/or sanitize the storage bin interior, wipe off the exterior with a clean, damp cloth.
8. Give the owner/user the service manual, instruct him/her in the operation of the unit, and make sure they know who to call for service.
9. Fill out the manufacturer's registration and mail it to Ice-O-Matic.

Pre-Start Inspection: Remote

1. Remove the front and side service panels.
2. Check that any shipping blocks have been removed.
3. Inspect the interior of the ice machine for loose screws or wires.
4. Check that no refrigerant lines are rubbing each other.
5. Check that the fan blades turn freely (Remote Condenser).
6. Check that the refrigerant lines are properly installed.
7. Check that the electrical power has been on for at least 4 hours and that the compressor dome is warm.
8. Check that the unit is installed correctly according to the final check list.

Start Up:

1. Go through the pre-start inspection.
2. Open the hand valve, observe that water enters the water reservoir, fills the tube from the water reservoir to the evaporator and then shuts off. (Water cooled only, Turn the water supply **ON** to the water cooled condenser). Check for leaks.
3. Open the King Valve.
4. Switch the master switch **ON**. The electrical start up sequence in automatic.
    a. There should be a short (15 second) delay before the gear motor starts and the liquid line opens.
    b. After the liquid line opens, the low pressure control will close and the compressor will start.
5. The remote condenser fan turns, and the condenser begins to discharge warm air.
6. The unit should soon be making ice, if desired; the low side pressure may be checked: it should be 32 psig +/- 2 psig.
   The air cooled discharge pressure will depend upon air and water temperatures, but should be between 200 psig and 280 psig.
7. **There are no adjustments to make**, so replace the panels.
8. Clean and/or sanitize the storage bin interior, wipe off the exterior with a clean, damp cloth.
9. Give the owner/user the service manual, instruct him/her in the operation of the unit, and make sure they know who to call for service.
10. Fill out the manufacturer's registration and mail it to Ice-O-Matic.

It is the USER'S RESPONSIBILITY to see that the unit is properly maintained. It is always preferable, and less costly in the long run, to avoid possible down time by keeping it clean; adjusting it as needed; and by replacing worn parts before they can cause failure. The following is a list of recommended maintenance that will help keep the machine running with a minimum of problems.
Maintenance and Cleaning should be scheduled at a **minimum of twice a year.**

Note: Electrical power will be ON when doing in place cleaning.

ICE MAKING SYSTEM: In place cleaning.

1. Check and clean any water treatment devices, if any are installed.
2. Remove screws, and the front and top panel.
3. Move the **ON-OFF** switch to **OFF**.
4. Remove all the ice from the storage bin.
5. Remove the cover from the water reservoir and block up the float.
6. Drain the water reservoir and freezer assembly using the drain tube attached to the freezer water inlet. Return the drain tube to its normal upright position and replace the end cap.
7. Prepare the cleaning solution: Mix eight (8) ounces of ice machine cleaner with three (3) quarts of hot water. The water should be between (95ºF-115ºF).
8. Slowly pour the cleaning solution into the water reservoir until full. Wait 15 minutes, then switch the master switch **ON**.
9. As the ice machine begins to use water from the reservoir, continue to add more cleaning solution to maintain a full reservoir.
10. After all of the cleaning solution has been added to the reservoir, and the reservoir is nearly empty, switch the master switch to **OFF**.
11. Drain the water reservoir and freezing assembly using the drain tube attached to the freezer water inlet. Return the drain tube to its normal position and replace the end cap. Wash and rinse the water reservoir.

Sanitizing

Use an EPA approved food equipment sanitizer at the solution mix recommended by the sanitizer manufacturer. Repeat steps 8-11 using the sanitizer solution in place of the cleaning solution.

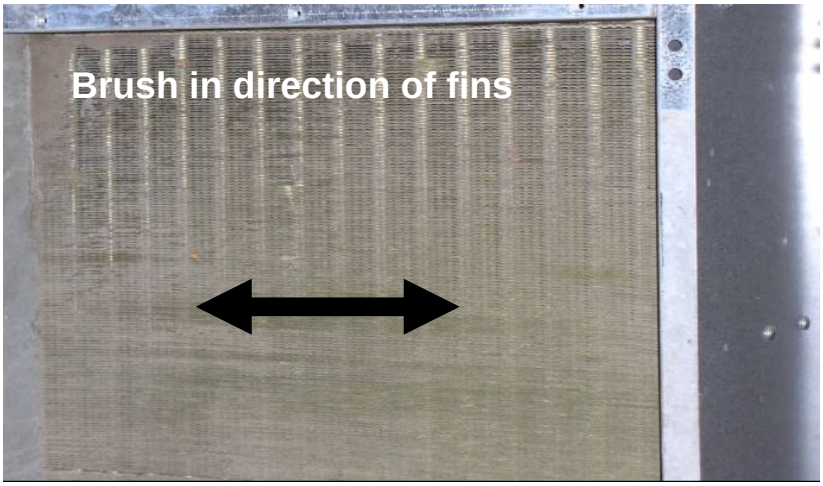
12. Remove the block from the float in the water reservoir.
13. Switch the master switch **ON**.
14. Continue ice making for at least 15 minutes, to flush out any cleaning solution.

Note: DO NOT USE any ice produced from the cleaning solution! Be sure no ice remains in the bin!

15. Remove and discard all ice from the storage bin.
16. Add warm water to the ice storage bin and thoroughly wash and rinse all surfaces within the bin.
17. Sanitize the bin interior by thoroughly washing the interior of the bin and bin door with the balance of the sanitizing solution.
18. Replace the panels.

Warning! Ice machine cleaner contains acids. If swallowed, DO NOT induce vomiting. Give large amounts of water or milk. Call Physician immediately. In case of external contact, flush with water.

KEEP OUT OF THE REACH OF CHILDREN.



● Clean the condenser: the condenser may appear to be clean on the surface, but it can still be clogged internally. Check with a flashlight from the front to see if light can be seen through the condenser fins.

The condenser coil must be kept clean. The condenser can be cleaned with compressed air or by using a brush.

If a brush is used, brush in the direction of the fins taking care not to bend or distort the fins. Use a soft bristle nylon brush.

If the condenser fins are bent or distorted, this will restrict the airflow through the condenser and the fins will need to be straightened with a fin comb.

When cleaning the Condenser, check the fan blade for cleanliness and for balance. Balance is checked by spinning the blade by hand and looking for any wobble. Pull on the shaft in several directions to check the bearings of the motor.

The fins of the remote condenser require periodic cleaning.

At 6 month intervals the fins on the inlet side of the condenser (bottom as shown) should be brushed free of dust and dirt
Brush in the direction of the fins as noted by the arrows.

Additionally look through the fins, using a flashlight if required, to insure there is no other blockage obstructing air flow between the fins.

If the air flow appears to be blocked, blow out the condenser using CO2 gas.

Caution: Disconnect electrical power before servicing this equipment.

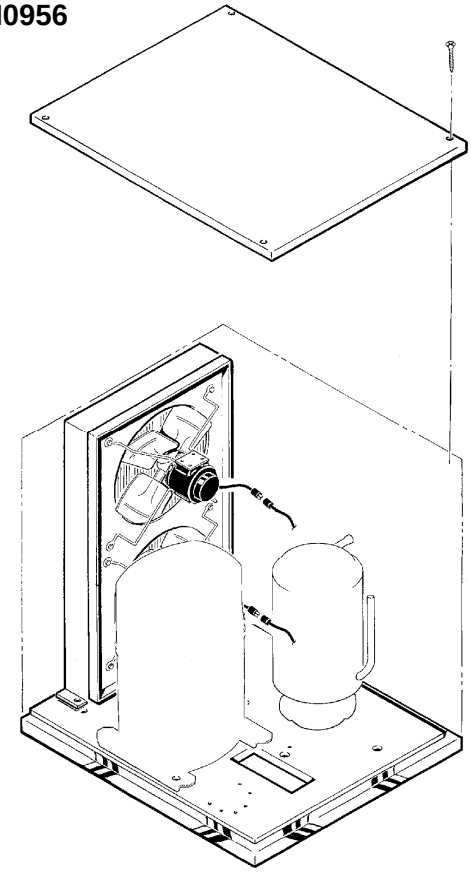
Caution: Protective eye wear and gloves should be worn when cleaning the condenser.

Clean the air cooled condenser:

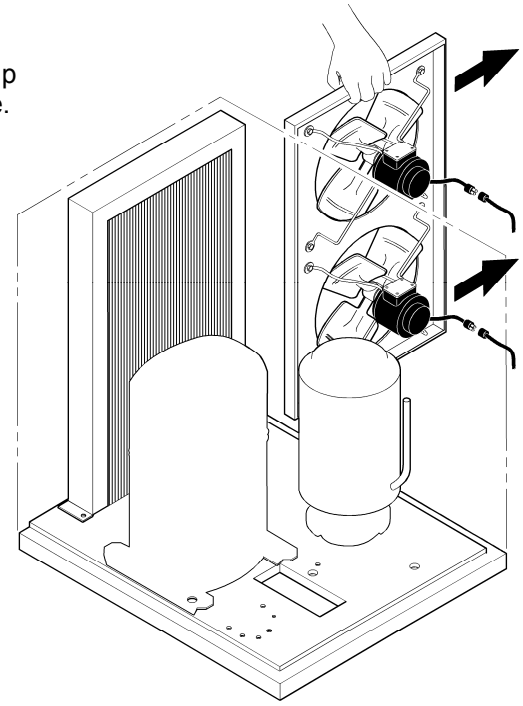
Air flow on this model is from front to back, so the inside of the ice machine will have to be available to clean the air cooled condenser. Use a vacuum cleaner or coil cleaner if needed. DO NOT use a wire brush.

- **Disconnect electrical power**, and remove the air filter if applicable. The filter may be cleaned or replaced.
- Clean the condenser: the condenser may appear to be clean on the surface, but it can still be clogged internally. Check with a flashlight from the front to see if light can be seen through the condenser fins.

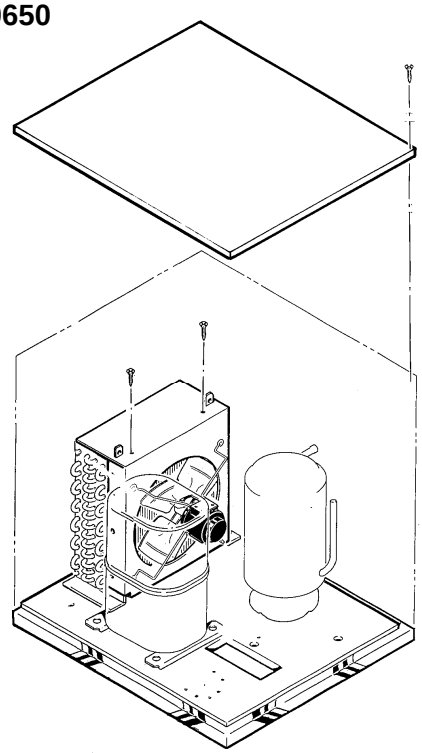
GEM0956



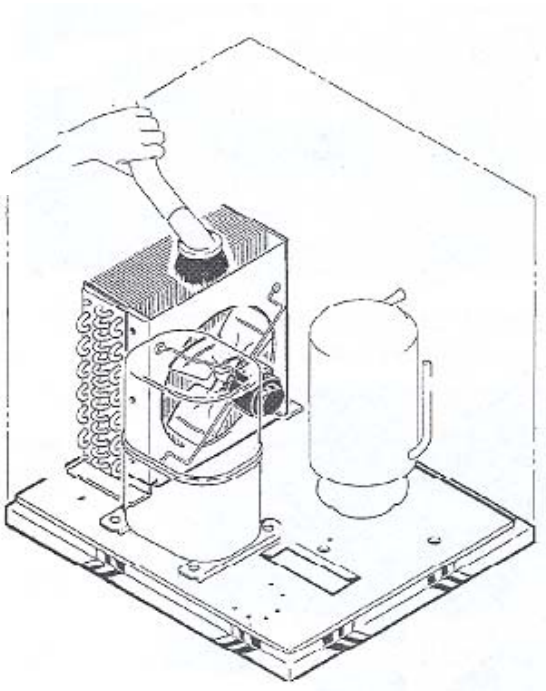
Step 1. Remove the Top Panel
Step 2. Remove two screws and unplug fan motors.
Step 3. Pull fan motor assembly up and to the right to remove.
Step 4. Clean the condenser.



GEM0650



Step 1. Remove the Top Panel
Step 2. Remove the top portion of the fan shroud.
Step 3. Clean the condenser.



What to Do Before Calling for Service:

●Check the water supply to the ice machine. The ice machine is designed to shut off if there is no water to it. Check the water filters if there are any.

●Check the power supply to the ice machine. Reset the breaker if it is tripped.

●If both water and power have been checked and are available, try switching the power **OFF** and then **ON**. After 2 minutes the machine should restart. If this procedure restarts the machine, service should be called the next time the machine stops.

Model Number:_____ **Serial Number:**_____ **Install Date:**_____